

Ghana - Community Services - WASH

Report generated on: December 6, 2017

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Overview

Identification

COUNTRY

Ghana

EVALUATION TITLE

Community Services - WASH

EVALUATION TYPE

Independent Impact Evaluation

ID NUMBER

DDI-MCC-GHA-WASH-ND-2010-v5

Version

VERSION DESCRIPTION

Anonymized dataset for public distribution

Overview

ABSTRACT

This evaluation employs a pretest-posttest with pair matched comparison groups. In order to assess the impacts of the water points, the research design uses a difference-in-difference estimate of the program impacts. These estimates account for changes over time (before and after the intervention) in the treatment and control groups and for differences in those changes between the treatment and control groups. The measure of the program impact is thus a double-difference estimate. In this study, difference-in-difference estimates of the program impacts will be obtained for each of the main outcomes of interest as defined in the evaluation design (i.e., incidence of diarrhea amongst children 5 years and younger, time savings in acquiring water, water expenditures, water consumption, and income).

EVALUATION METHODOLOGY

Difference-in-Difference

UNITS OF ANALYSIS

Households and household members.

KIND OF DATA

Sample survey data [ssd]

TOPICS

Topic	Vocabulary	URI
water		

Coverage

GEOGRAPHIC COVERAGE

The Water Component of the Rural Development Project's Community Services Activity was designed to provide improved water systems to 137 selected communities in the African Basin Zone, Southern Horticultural Belt, and the Northern Agricultural Zone of Ghana.

UNIVERSE

The population being studied in this evaluation are the beneficiaries of the water activity. A total of 153,000 people living in 27,407 households in 30 districts of Ghana were affected by the water activity. For the evaluation the target was to conduct

household surveys of 600 households in 50 treatment communities and 600 households in 50 control communities.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Notre Dame Initiative for Global Development	The University of Notre Dame

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Millennium Challenge Corporation	MCC		Review of Metadata

DATE OF METADATA PRODUCTION

2016-12-02

DDI DOCUMENT ID

DDI-MCC-GHA-WASH-ND-2010-v5

MCC Compact and Program

COMPACT OR THRESHOLD

Ghana Compact

PROGRAM

The Water Component of the Rural Development Project's Community Services Activity of the Ghana Compact was designed to provide water system upgrades to 137 selected communities in the African Basin Zone, Southern Horticultural Belt, and the Northern Agricultural Zone. Over the course of the compact, a total of 392 water points were constructed, including boreholes, small town water systems and pipe extensions. Three types of projects were implemented in program communities, (1) boreholes fitted with hand pumps in small communities, (2) small town water systems comprised of lift system for water pump and distribution, and (3) the Tamale water extension system in the north that extended the piped-water delivery system to surrounding communities.

MCC SECTOR

Water, Sanitation and Hygiene (WASH)

PROGRAM LOGIC

The theory of change behind the water activity is that by improving water systems in districts participating in the Compact, the households' economic productivity and income will increase. This increase could reduce unproductive time spent caring for the sick, and/or collecting water. Since the quality of water will be improved by the project, the prevalence of illness, particularly diarrhea, will be reduced and the overall health status will improve. In addition, the water activity could help shift time formerly reserved for collecting water to income producing activities. Rural households in developing countries need substantial amounts of time for water collection as each round trip from home to a water source can be lengthy and can require multiple trips (Meeks 2012). The MCC/MIDA Ghana performance indicator system documents the average distance for collecting water at 1,190 meters in the base period, and the project intervention aimed to reduce this distance by more than half (500 meters). By shortening the distance, time can be saved. The baseline report (p. 62) mentions, "all households' members together are spending around four hours a day (240 minutes) collecting water." That means water collection work is taking a considerable amount of time which could be utilized for other productive activities. There is little doubt that providing new water sources in the proximity will reduce the total amount of time people spend collecting water. The link between safe drinking water and health outcomes is unquestionable. Water from unsafe sources is the cause of life threatening diseases in rural communities. Sources like unprotected springs, carts with small tank/drum, tanker trucks, and surface water (river, dam, lake, pond, stream, canal, or irrigation) are more likely to cause several types of diseases. The prevalence of these diseases is high in the locations where this project was implemented in Ghana; namely, diarrhea, Guinea worm and Bilharzia. When people get sick due to water borne diseases, it costs time and money. When children get severely

sick they need to be rushed to hospitals. That leads to economic costs for adults. WHO estimates that 88 percent of diarrheal disease instances are attributable to unsafe water supply, inadequate sanitation, and inadequate hygiene worldwide. The provision of improved water systems can help to reduce the risk of infection, which can help reduce the prevalence of waterborne diseases, saving time and money. Diarrheal diseases account for 12% of childhood deaths in Ghana, and are the third largest cause of death for children under the age of 5. These diseases are caused by the ingestion of water contaminated by fecal matter, and 20% of Ghana's population does not use an improved water source (IPA 2008) .

PROGRAM PARTICIPANTS

All household members in participating communities, with the main focus on children 5 years old and younger.

Sampling

Study Population

The population being studied in this evaluation are the beneficiaries of the water activity. A total of 153,000 people living in 27,407 households in 30 districts of Ghana were affected by the water activity. For the evaluation the target was to conduct household surveys of 600 households in 50 treatment communities and 600 households in 50 control communities.

Sampling Procedure

Out of the 137 program communities, 50 communities were selected at random for the baseline data collection stage. These communities constituted the treatment group. An additional 50 communities not in the program were selected, also at baseline, to serve as the control. These control communities were selected using matching techniques.

At a more granular level, the evaluation includes two data collections: one before the program started (refer as baseline) and a follow-up after the program finished.

During the baseline, in each of the 100 communities, 12 households were selected with the objective of having 10 households in the follow-up study. In each community, a starting point was selected by the supervisor or field manager. This could be a structure like a church, mosque, school, hospital, gas station, police station, etc.; it could also be a bus or taxi park. In any case it was always easy to find or identify. The starting point was used to determine from where the interviewing will begin. The field manager geo-located this starting point and entered the correct information on their community tracking sheet.

Movement from the starting point:

1. Once at the given starting point, interviewers stood with their backs to the structure and moved to the right. Using the day of the interview's date code, and counting households (excluding the starting point), interviewers attempted a contact at the first house corresponding to the day of interview's date code i.e. the date that the interviews were being conducted determined which house was contacted first after the starting point.
2. This household was considered as the first household, and subsequent households were selected by observing the pre-determined skip.³ It is important to keep in mind that we counted individual households and not houses, as a house/building can contain numerous individual households. However, because this study took place in rural areas, a house/building could constitute a household.
3. Interviewers kept to the right side of the road, and did not cross the street.
4. If the interview in a household selected was unsuccessful, interviewers contacted the immediate next household in his/her journey plan; filled in the reason for not being successful in the earlier house and repeated the above process till s/he was successful. Before moving on to a new household the interviewer completed a household identification sheet.
5. When an interview was completed (the interview was successful), then the interviewer observed the skip in his/her journey plan to locate the next household.

In the follow-up survey, the same dwellings that were included in the baseline study were re-visited . We used the complete list of households with contact information and the geographical position of the households from Baseline.

This information help us at least locate the dwelling where the interviewed was done. If the family moved outside of the village, we will consider it a case of attrition. If the family can be found in the same village, we will try to find them.

Questionnaires

Overview

Two types of questionnaires were used for the Water Component Impact Evaluation Study — one for communities and another for households. The community questionnaire was used to obtain information on the location and overall relationship to the program, public water facilities, schools within a 30 minutes of walking travel time or 5km radius of village, sustainability practices and possible unintended effects of the program. In addition, the questionnaire was used to record certain direct observations by the enumerator.

The household questionnaire was used to obtain information on the location, household members, level of education, health, economic activities, water use and sources, water collectors, water sources, and constructions.

Data Collection

Data Collection Dates

Start	End	Cycle
2015-02-25	2015-03-09	Follow-up

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Data Collectors

Name	Abbreviation	Affiliation
Panfields	Panfields	

Data Processing

No content available

Data Appraisal

No content available